Resource Management Systems

INTRODUCTION

Conservation planning is a natural resource problem solving and management process. The process integrates economic, social, and ecological considerations to meet private and public needs. This approach, which emphasizes desired future conditions, helps improve natural resource management, minimize conflict, and address problems and opportunities. The nine-step planning process used by NRCS is discussed in detail in the National Planning Procedures Handbook (NPPH).

The first step in the planning process is an initial determination of the client's problems, opportunities, and concerns related to natural resources and human considerations within the planning area. Exhibit 1 in the NPPH, Checklist of Resource Problems or Conditions, and Table 2 in the ND Field Office Technical Guide (FOTG) Sec. III, Quality Criteria, are based on categories of resources, considerations, and resource "aspects" which correspond to the column headings found in the "Conservation Practices Physical Effects" (CPPE) matrix in Section V of the FOTG.

Resource inventories and an analysis of resource data are completed in steps three and four. The results of this analysis are compared to quality criteria to document the kind, amount, and extent of existing and potential resource problems.

A broad range of technically feasible conservation alternatives are developed with the client. Alternatives may include structural and management practices that directly affect resources, or practices that indirectly mitigate potential adverse impacts on the resources. The purpose of formulating alternatives is to provide the most effective, efficient, and economical conservation treatments that address resource concerns and are acceptable to the client in solving problems, addressing opportunities, and meeting the stated objectives.

Conservation alternatives are developed at a Resource Management System (RMS) level. An RMS is a combination of practices that, when installed, will meet or exceed established quality criteria for identified soil, water, air, plant, and animal resource problems for resource sustainability. The installation of the planned practices will provide for the long-term conservation, protection, and/or improvement of the resource base. When one or more of the resource concerns do not meet the minimum requirements for sustainability, planning is considered "progressive."

Progressive Planning

Progressive planning is used when a client is ready, willing, and able to commit to implementing some, but not all, of the conservation practices needed to achieve an RMS. Progressive plans should be developed with a goal in mind to later plan and install all the practices needed for a RMS. Follow-up is a key to achieving that success.

Resource Management System Formulation

The RMS formulation process is discussed in detail in the NPPH.

The preplanning phase can involve the use of information found in the FOTG. These include:

- **General Resource References for Resource Planning:**

  Field office resource inventory and other supporting data are located in Section I of the FOTG.

  Site and soils information are found in Section II of the FOTG.

- **Quality Criteria:**

  Quality Criteria are in Section III of the FOTG.

- **Guidance Documents:**

  Guidance documents are located in Section III of the FOTG. These documents are usually specific for a particular area, generally a county or a group of counties.

- **Conservation Practice Physical Effects (CPPE) Documents:**

  The CPPE document is in Section V-A-1 of the FOTG.

- **Conservation Effects for Decision-making:**

  Section V-B of the FOTG shows effects of applying practices in the RMS examples.

Resource Management System Quality Criteria

INTRODUCTION

Quality criteria establish the minimum treatment level necessary to address natural resource concerns identified during the planning process for the development of an RMS. Quality criteria are quantitative or qualitative statements that are established in accordance with local, State, and Federal regulations, in consideration of ecological, economic, and social effects.

Not all resource concerns have quality criteria that can be quantified or have assessment tools that can measure changes in the resource. Table 1, Quality Criteria Guide for RMSs, identifies resource concerns having quality criteria that can be quantified and an assessment tool identified to measure changes in the resource condition. This table lists minimum treatment criteria for natural resource planning at the RMS level.

Resource concerns not listed in Table 1, but identified using either the North Dakota Checklist or NPPH Exhibit 1, Checklist of Resource Problems or Conditions, still need to be addressed if they have been identified as a resource concern in step 1 of the planning process. The resource checklist can provide planners with a comprehensive list of potential planning considerations, and should be used during an on-site inventory.

DESCRIPTIONS

Quality Criteria
Refers to the level or condition of the resource that is considered to be minimally acceptable. All technical assistance provided to resource users will be directed toward achieving the criteria level established for resource concerns. Resource quality criteria provide a means of determining the adequacy of technical assistance to land users by evaluating the ability of planned RMSs to achieve certain treatment levels in an acceptable timeframe.

Resources and Considerations
NRCS policy lists five resources: soil, water, air, plants, animals (SWAPA) to be included in all technical assistance provided. NRCS policy contains specific considerations related to each of the resources for which criteria were developed. Both the resources and their respective considerations are addressed individually. See Table 1.

Treatment Standards
Refers to the planned and/or applied conservation practices essential to achieve quality criteria in the primary resources of concern. Resource quality criteria provide a “goal”, while treatment standards provide the “means" by which to reach that goal. Treatment standards are the basis for RMS plans and serve as the measure of adequacy for planned treatment on a specific land use.

Resource Management System Quality Criteria

ESTABLISHMENT OF QUALITY CRITERIA

In the establishment of criteria, the following basic assumptions were followed for consistency and uniformity.

1. Quality criteria statements reflect a minimally acceptable condition of the resource. Quality criteria are quantifiable and have an assessment tool that either directly measures the resource condition or provides a reasonable indication of its condition. All resource concerns may be addressed during the planning process, whether or not they have established quality criteria.

2. Established criteria represent the minimum level that is acceptable for a resource or resource concern. Because resource concerns, as written, are problem oriented, criteria in effect state the acceptable condition or treatment of a resource.

3. Quality criteria are quantifiable. Criteria must be stated in clear terms, so planners know when a planned treatment is adequate.

4. Quality criteria levels must be attainable with current technology and approved conservation practices. Approved practices are contained in Section IV of the FOTG.

5. Quality criteria relate directly to an acceptable planning level.

6. Quality criteria for a resource represents a level that sustains the use and productivity of the resource indefinitely. Applying conservation practices needed to attain the desired long-term resource conditions may incur some adverse short-term affects.

7. Quality criteria levels should be usable, measurable, and/or recognizable.

APPLICATION OF QUALITY CRITERIA

Quality criteria establish the minimum treatment level necessary to adequately address resource concerns identified during the planning process for the development of an RMS.

The RMS will be considered applied (1) when all conservation practices that make up the system have been installed or applied according to Practice Standards and Specifications in Section IV of the FOTG, and (2) as long as they are properly maintained.

In cases where the decision-maker cannot solve the problem as an individual and does not have the needed cooperation of other land-users, the criteria will be met when the RMS-required practices have been applied to the extent feasible by the decision-maker on land under her/his control and he/she is not contributing to the problem.

The use and implementation of these quality criteria will be consistent with Federal, State, and local laws and regulations.

Planning Resource Management Systems

PLANNING RESOURCE MANAGEMENT SYSTEMS (RMS)

An RMS is a combination of practices that will solve the identified resource problems to at least the level indicated in the quality criteria and meet the cooperator's stated objectives. Successful resource management is dependent on the correct application and maintenance of the practices that make up an RMS. Essential practices prevent resource degradation and ensure sustainable use. Other practices deemed non-essential on a given site may be used to enhance the RMS.

Table 2, Conservation Planning Guide, provides the framework for development of RMS level conservation plans. All resource concerns listed in the "Primary Resource Concern" column **must** be evaluated for **each** specific land use, as a minimum, to achieve RMS level plans. The column labeled "Essential Practices" includes conservation practices that are required to meet an RMS, with exceptions noted. The column labeled "Other Practices" lists practices that could enhance a given site, or could be necessary to achieve an RMS. A given site may have uncommon concerns that need application of FOTG practice(s) not listed under the "Essential Practices" or the "Other Practices" column(s). Any practice in Section IV can be included in the plan.

Table 2, Conservation Planning Guide, is sorted by common land use systems. Only resource concerns that can be measured are listed as "Primary Resource Concerns." Other resource concerns may be identified during the planning process. An RMS must satisfy the quality criteria for the "Primary Resource Concerns" and address other resource concerns, as identified, on a case-by-case basis. Conservation planning skill is required to determine treatment levels for resource concerns lacking measurable quality criteria.

In some cases, actions by individual decision-makers cannot solve resource concerns involving more than one decision-maker. In these cases, group planning, project measures, or multi-program activities may be required to meet the respective quality criteria.

All practices contained in Section IV of the FOTG must be applied according to NRCS specifications. Changes in primary resource concerns will be measured with their respective assessment tools. Resource concerns without an assessment tool will be considered adequately treated when the practice(s) chosen to treat the resource concern have been installed according to NRCS standards and specifications, and properly maintained.